

Application No. 10/826,709

Reply to Office Action dated March 24, 2005

REMARKS

Applicants and their attorney thank Examiners Donovan and Hendricks for the interview on June 23, 2005. No reference cited or combination of references suggests a multilayered moisture barrier having a lipid layer and a hydrophobic barrier layer where the lipid layer has a combination of a high melting point microparticulate lipid and low melting triglyceride and the use of lipid particle size to stabilize the oil fraction of the triglyceride blend in the lipid layer. This stabilization is important in that it permits the cooling of the product at very broad rates.

The specification states at page 13, lines 17-27,

Microparticulated high melting lipids having a melting point of about 70°C or higher are generally preferred for use as crystal growth modifiers in the present invention. Such crystal growth modifiers inhibit crystal growth and, thus, are effective for promoting the formation of small fat crystals (from the triglyceride blend during cooling). Such small fat crystals effectively immobilize remaining liquid oil fraction of the triglyceride blend, thus preventing liquid oil from draining from the fat crystal network. During subsequent storage, such fat crystal control agents are also effective in stabilizing the three dimensional solid fat crystal network made of numerous small fat crystals. The presence of smaller fat crystals generally provides a better moisture barrier.

The specification also states at page 14, line 24-32,

The micromilling is effective for providing numerous fragments with a particle size of about 0.1 microns or less which are believed to be the functional component responsible for fat crystal control and stabilization. In such microparticulated high melting lipid, the volume average particle size as measured by a Horiba LA-900 laser particle sizer (Horiba Instrument, Inc. Irvine, CA) is about 10 microns or less, and preferably about 1 to about 5 microns, with at least about 5 percent of the particles (based on volume basis) being less than about 0.1 microns, and preferably with about 1 to about 20 percent being less than about 1 microns.

Claims 1, 4-7, 9-16 18, 20-23 and 27-65 are now in this application with claims 38-65 being new and claims 1, 20 (method), 38 and 48 (method) as the independent claims.

Independent claims 38 and 48 indicate the claimed combination is effective for achieving the stabilization result described above. This language has a basis in law. *In re Halleck*, 164 U.S.P.Q. 647 (CCPA 1970).

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Art Rejections

In the NON-FINAL rejection, the Examiner has cited Averbach, Saur, Cebula and Germino in various combinations in rejecting the then pending claims as obvious.

Averbach

Averbach's concern is cracking lipids in a moisture barrier. The reference requires a synthetic oleaginous material and says nothing about the particle size of wax or the stabilization of oil in a triglyceride. The reference

- does not describe microparticles; and
- has lots of oil (see col. 2 and col. 3, ln 8, at least 95% versus 1-35 wt % lipid and 65-99 wt % oil in the claims of this application).

The percentages of oil and fat in the claims overlaps with the reference, but the reference does not suggest the claimed invention. The invention stabilizes the oil in the moisture barrier, the reference does not. Averbach generally teaches too much oil and no microparticles. Averbach does not teach 1-35% high m.p. lipid for sandwiches. Averbach genererally has an oil content of at least 95 percent (Col 3, line 8), the claims are from 65%. Averbach's lipid content then is generally not more than 1%, see Col. 8, line 52, we are at 1 to 35%. Averbach's higher lipid content of over 1% was for fruit and vegetable skins, not sandwiches.

Saur

Saur describes spraying an additive, such as a wax, in a fat or oil solvent, onto a food product where the result is a moisture barrier. The point of Saur is the use of a supercritical fluid such as carbon dioxide as a carrier for oil or fat soluble flavorant, or for edible moisture barriers. Col. 2. While Saur describes particles which are 1-100 microns, there is not distinction between liquid or solid particles. See Column 4, ln 55 et seq. In the instant application, small solid particles are used to stabilize the oil in the triglyceride component of the moisture barrier.

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Cebula

Cebula uses polyol fatty acids as a moisture barrier. Cebula mentions chocolate particles at column 4, ln 50, but not describe particle size of a lipid or the value of the particle size in a combination of triglyceride fat and particulate lipid. The Examiner has admitted that Cebula's moisture barrier is different than the claimed barrier, but merely states that Cebula's teachings regarding desired solid fat content barrier thickness are relevant to the claimed invention.

Germino

Germino treats food with stearic acid to obtain a crunchy and chewy food. The reference does not describe the stabilization of a moisture barrier using a particulate lipid having a specific particle size range.

The Pending Claims Are Non-obvious

No reference or combination of references suggest a multilayered moisture barrier having a lipid layer and hydrophobic layer where in the lipid layer there is a balancing the lipid content and triglyceride oil within percent ranges to stabilize the particle size of fat (see page 6, lines 10-12 of the specification) and prevent the fat from draining from the moisture barrier. Moreover,, the lipid particles according to the invention, promote the growth of small fat crystals to permit variable rapid cooling of the moisture barrier during high speed food production. The recitation of a general percentage range for fats and lipids in a reference without the recitation of particles and particle sizes does not suggest the claimed invention.

Claim Support

To ease the Examiner's burden in determining support for the claims, applicant will review some of the claims and identify the support for the claims on an exemplary basis.

In claim 1 the ± 5 degrees C has support at page 5, line 7 of the specification.

Claim 4 has support at page 5, lines 10-12 of the specification.

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Claim 5 has support at page 5, line 9 of the specification.

Claim 6 has support at page 5, line 10 of the specification.

Claim 7 has support at page 5, lines 15-16 of the specification.

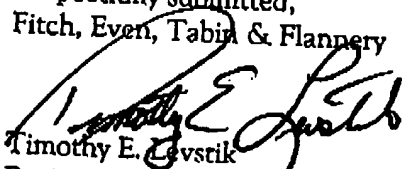
Claim 12 has support at page 5, lines 21-22 (5-25%), page 14, line 4 (100°C) and claim 12 as filed (less than 5 microns).

Claim 39 has support for less than 1 micron at page 14, lines 31-32 of the specification.

Conclusion

Applicant respectfully submits that the currently claims patentably define the invention over the references and requests that a timely Notice of Allowance be issued in this case. The Commissioner is hereby authorized to charge any additional fees which may be required in this application to Deposit Account No. 06-1135.

Respectfully submitted,
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